



COPY 1638

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: BORONAT et al.

Appln. No.: 09/987,025

Filed: 13 November 2001

For: Nucleic Acid Sequences to Proteins
Involved in Isoprenoid Synthesis

Art Unit: 1638

Examiner: R. L. Kallis

Atty. Dockets: MONS:039USC1
REN-01-020-CON

INFORMATION DISCLOSURE STATEMENT
PURSUANT TO 37 C.F.R. §§ 1.97 AND 1.98

Mail Stop Information Disclosure Statement
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. §§ 1.97 and 1.98, applicants wish to bring the following information to the attention of the Examiner in connection with the subject application. A copy of each citation being mailed is included as is Form PTO-1449, on which the citations are listed.

Pursuant to 37 C.F.R. §1.17(p), please charge the One Hundred Eighty Dollars and 00/100 (\$180.00) fee for filing this document to our Deposit Account No. 50-1100. If any additional fee or credit is due, please charge or credit the amount to our Deposit Account No. 50-1100. This authorization is provided in duplicate for accounting purposes.

Applicants wish to bring to the Examiner's attention other pending U.S. applications directed to tocopherol which have been filed on behalf of Monsanto Technology LLC and/or

CERTIFICATE OF EXPRESS MAILING

I hereby certify that this document (with all enclosures) is being deposited with the United States Postal Service on this 22nd day of April 2004 in an envelope as "Express Mail Post Office to Addressee", mailing Label Number ER 138 719 562 US addressed to Mail Stop 313(c), Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. The references are being deposited under separate cover in 3 boxes addressed to: Mail Stop Information Disclosure Statement, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

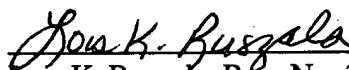

Sandra Paulov / Lois Ruszala

Calgene LLC. The published applications are set forth in the "Related Patent Documents" section on the Form PTO-1449.

This Disclosure Statement is not intended to substitute for the Examiner's own search. It is believed, however, that this Disclosure Statement will assist the Examiner in the search. The Examiner is expressly requested to review each item cited herein and to make all of the cited items of record in this case as having been considered. The completed Form PTO-1449 is attached for this purpose.

Citation of the items herein is not to be construed as an admission that the information is within the scope and content of the prior art relevant to the present invention, that the information is prior in time to a particular date which may be relevant to the present patent application, that the information is otherwise prior art with respect to the present invention, or that the information cited is material to the claims. In addition, applicants reserve the right to later set forth how the present invention is distinguished over the disclosure of any document or other prior art, including the information cited herein.

Respectfully submitted,



Lois K. Ruzala, Reg. No. 39,074

Thomas E. Omholt, Reg. No. 37,052

Renessen LLC
Legal Dept - Intellectual Property
3000 Lakeside Drive, Suite 300-South
Bannockburn, IL 60015
Phone: 847-457-5000
Fax: 847-457-5174

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE
(Rev. 2.32) PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.

SERIAL NO.

MONS:039USC1; REN-01-020 10/09/2003

APPLICANT

BORONAT et al.

FILING DATE

November 13, 2001

GROUP

1638

INFORMATION DISCLOSURE

STATEMENT BY APPLICANT

(Use several sheets if necessary)

"RELATED" U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	A	2002/0069426	06 June 02	Boronat et al.			
	A	2002/0108148	08 Aug 02	Boronat et al.			
	A	2003/0148300	07 Aug 03	Valentin et al.			
	A	2003/0150015	07 Aug 03	Norris et al.			
	A	2003/0154513	14 Aug 03	van Eenennaam et al.			
	A	2003/0166205	04 Sep 03	van Eenennaam et al.			
	A	2003/0170833	11 Sep 03	Lassner et al.			
	A	2003/0176675	18 Sep 03	Valentin et al.			
	A	2003/0213017	13 Nov 03	Valentin et al.			
	A	2004/0018602	29 Jan 04	Lassner et al.			
	A	2004/0045051	04 Mar 04	Norris et al.			

U.S. PATENT DOCUMENTS

	A	4,727,219	23 Feb 88	Brar et al.			
	A	5,304,478	19 Apr 94	Bird et al.			
	A	5,429,939	04 Jul 95	Misawa et al.			
	A	5,432,069	11 Jul 95	Grüninger et al.			
	A	5,545,816	13 Aug 96	Ausich et al.			
	A	5,618,988	08 Apr 97	Hauptmann et al.			
	A	5,684,238	04 Nov 97	Ausich et al.			
	A	5,693,507	02 Dec 97	Daniell et al.			
	A	5,750,865	12 Mar 98	Bird et al.			
	A	5,792,903	11 Aug 98	Hirschberg et al.			
	A	5,876,964	02 Mar 99	Croteau et al.			
	A	5,908,940	01 Jun 99	Lane et al.			
	A	6,281,017	28 Aug 01	Croteau et al.			
	A	6,541,259	01 Apr 03	Lassner et al.			

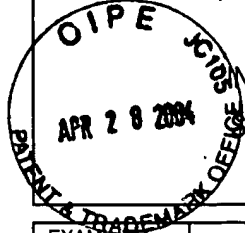
FOREIGN PATENT DOCUMENTS

Examiner

Date Considered

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(Form PTO-1449 [6-4])



INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

APPLICANT
BORONAT et al.

FILING DATE
November 13, 2001

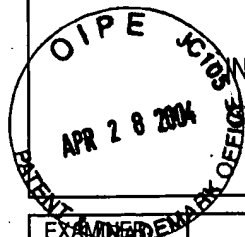
GROUP
1638

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	B	2,339,519	17 Feb 00	Canada			Eng Version of WO 00/08169
	B	2,343,919	30 Mar 00	Canada			Eng Version of WO 00/17233
	B	2,372,332	02 Nov 00	Canada			Eng Version of WO 00/65036
	B	1 033 405 A2	06 Sep 00	EPO			
	B	0 674 000 A2	27 Sep 95	EPO			
	B	0 531 639 A2 & A3	17 Mar 93	EPO			
	B	0 763 542 A2	19 Mar 97	EPO			
	B	1 063 297 A1	27 Dec 00	EPO			NO (DE)
	B	2 778 527		FR			YES
	B	DE 198 35 219 A1	05 Aug 98	German/English			YES=CA2339519
	B	560,529	07 Apr 44	Great Britain			
	B	WO 00/01650	13 Jan 00	PCT			
	B	WO 00/08169	17 Feb 00	PCT			YES=CA2339519
	B	WO 00/08187	17 Feb 00	PCT			
	B	WO 00/10380	02 Mar 00	PCT			
	B	WO 00/11165	02 Mar 00	PCT			
	B	WO 00/14207	16 Mar 00	PCT			
	B	WO 00/22150 A3	20 Apr 00	PCT			
	B	WO 00/28005	18 May 00	PCT			
	B	WO 00/32757 A2 & A3	08 Jun 00	PCT			
	B	WO 00/61771	19 Oct 00	PCT			
	B	WO 00/63389	26 Oct 00	PCT			
	B	WO 00/63391	26 Oct 00	PCT			
	B	WO 00/68393	16 Nov 00	PCT			
	B	WO 01/04330	18 Jan 01	PCT			
	B	WO 01/09341	08 Feb 01	PCT			
	B	WO 01/12827	22 Feb 01	PCT			

Examiner

Date Considered

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use several sheets if necessary)

APPLICANT
BORONAT et al.

FILING DATE
November 13, 2001

GROUP
1638

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
B	WO 01/21650	29 Mar 01	PCT			
B	WO 01/44276	21 Jun 01	PCT			
B	WO 01/62781	30 Aug 01	PCT			Partial
B	WO 01/79472	25 Oct 01	PCT			
B	WO 01/88169 A2 & A3	22 Nov 01	PCT			
B	WO 02/00901 A1	03 Jan 02	PCT			YES
B	WO 02/29022	11 Apr 02	PCT			
B	WO 02/31173	18 Apr 02	PCT			YES
B	WO 02/33060	25 Apr 02	PCT			
B	WO 02/46441	13 Jun 02	PCT			
B	WO 02/072848	19 Sep 02	PCT			
B	WO 02/089561	14 Nov 02	PCT			
B	WO 03/034812	01 May 03	PCT			
B	WO 03/047547	12 Jun 03	PCT			
B	WO 91/02059	21 Feb 91	PCT			
B	WO 91/09128	27 Jun 91	PCT			
B	WO 91/13078	05 Sep 91	PCT			
B	WO 93/18158	16 Sep 93	PCT			
B	WO 94/11516	26 May 94	PCT			
B	WO 94/12014	09 Jun 94	PCT			
B	WO 94/18337	18 Aug 94	PCT			
B	WO 95/08914	06 Apr 95	PCT			
B	WO 95/18220	06 Jul 95	PCT			Abstract
B	WO 95/23863	08 Sep 95	PCT			
B	WO 95/34668	21 Dec 95	PCT			
B	WO 96/02650	01 Feb 96	PCT			
B	WO 96/06172	29 Feb 96	PCT			
B	WO 96/13149	09 May 96	PCT			
B	WO 96/13159	09 May 96	PCT			

Examiner

Date Considered

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(Form PTO-1449 [6-4])

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	B	WO 96/36717 A2 & A3	21 Nov 96	PCT			
	B	WO 96/38567	05 Dec 96	PCT			US equivalent
	B	WO 97/17447	15 May 97	PCT			
	B	WO 97/27285	31 Jul 97	PCT			
	B	WO 97/49816	31 Dec 97	PCT			
	B	WO 98/04685	05 Feb 98	PCT			
	B	WO 98/06862	19 Feb 98	PCT			
	B	WO 98/18910	07 May 98	PCT			
	B	WO 99/04021	28 Jan 99	PCT			
	B	WO 99/04622	04 Feb 99	PCT			
	B	WO 99/06580	11 Feb 99	PCT			
	B	WO 99/07867	18 Feb 99	PCT			
	B	WO 99/19460	22 Apr 99	PCT			
	B	WO 99/55889	04 Nov 99	PCT			
	B	WO 99/58649	18 Nov 99	PCT			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

c	ADDLESEE <i>et al.</i> , "Cloning, sequencing and functional assignment of the chlorophyll biosyntheses gene, <i>chlP</i> , of <i>Synechocystis</i> sp. PCC 6803", FEBS Letters 389 (1996) 126-130
c	ARANGO <i>et al.</i> , "Tocopherol synthesis from homogenizate in <i>Capsicum annum</i> L. (yellow pepper) chromoplast membranes: evidence for tocopherol cyclase", Biochem J., 336:531-533 (1998)
c	ARIGONI <i>et al.</i> , "Terpenoid biosynthesis from 1-deoxy-D-xylulose in higher plants by intramolecular skeletal rearrangement", Proc. Natl. Acad. Sci. USA, 94:10600-10605 (1997)
c	BAKER <i>et al.</i> , "Sequence and characterization of the <i>gcpE</i> gene of <i>Escherichia coli</i> ", FEMS Microbiology Letters, 94:175-180 (1992)
c	BAYLEY <i>et al.</i> , "Engineering 2,4-D resistance into cotton," Theor Appl Genet, 83:645-649 (1992)
c	BENTLEY, R., "The Shikimate Pathway - A Metabolic Tree with Many Branches," Critical Reviews™ in Biochemistry and Molecular Biology; Vol. 25, Issue 5, 307-384 (1990)
c	BEVAN, M., "Binary <i>Agrobacterium</i> vectors for plant transformation", Nucleic Acids Research, 12:8711-8721 (1984)
c	BEYER <i>et al.</i> , "Phytoene-forming activities in wild-type and transformed rice endosperm," IRRN 21:2-3, p 44-45 (August-December 1996)

Examiner

Date Considered

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(Form PTO-1449 [6-4])

APPLICANT
BORONAT et al.

FILING DATE
November 13, 2001

GROUP
1638

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

c	BORK <i>et al.</i> , "Go hunting in sequence databases but watch out for the traps", TIG 12, 10:425-427 (October 1996)
c	BOUVIER <i>et al.</i> , "Dedicated Roles of Plastid Transketolases during the Early Onset of Isoprenoid Biogenesis in Pepper Fruits", Plant Physiol., 117:1423-1431 (1998)
c	BOWIE <i>et al.</i> , "Deciphering the Message in Protein Sequences: Tolerance to Amino Acid Substitutions", Science, 247:1306-1310 (1990)
c	BRAMLEY <i>et al.</i> , "Biochemical characterization of transgenic tomato plants in which carotenoid synthesis has been inhibited through the expression of antisense RNA to pTOM5," The Plant Journal, 2(3), 343-349 (1992)
c	BREITENBACH <i>et al.</i> , "Expression in <i>Escherichia coli</i> and properties of the carotene ketolase from <i>Haematococcus pluvialis</i> ," FEMS Microbiology Letters 140, 241-246 (1996)
c	BROUN <i>et al.</i> , "Catalytic Plasticity of Fatty Acid Modification Enzymes Underlying Chemical Diversity of Plant Lipids," Science, 282:1315-1317 (1998)
c	BUCKNER <i>et al.</i> , "The <i>y1</i> Gene of Maize Codes for Phytoene Synthase," Genetics 143:479-488 (May 1996)
c	BURKHARDT <i>et al.</i> , "Genetic engineering of provitamin A biosynthesis in rice endosperm," Experientia, 818-821
c	CAHOON <i>et al.</i> , "Production of Fatty Acid Components of Meadowfoam Oil in Somatic Soybean Embryos," Plant Physiology, 124:243-251 (2000)
c	CHAUDHURI <i>et al.</i> , "The purification of shikimate dehydrogenase from <i>Escherichia coli</i> ," Biochem. J., 226:217-223 (1985)
c	CHENG <i>et al.</i> , "Highly Divergent Methyltransferases Catalyze a Conserved Reaction in Tocopherol and Plastoquinone Synthesis in Cyanobacteria and Photosynthetic Eukaryotes", The Plant Cell, 15:2343-2356 (2003)
c	COLLAKOVA <i>et al.</i> , "Isolation and Functional Analysis of Homogentisate Phytoltransferase from <i>Synechocystis</i> sp. PCC 6803 and <i>Arabidopsis</i> ", Plant Physiology, 127:1113-1124 (2001)
c	COLLAKOVA <i>et al.</i> , "Homogentisate Phytoltransferase Activity is Limiting for Tocopherol Biosynthesis in <i>Arabidopsis</i> ", Plant Physiology, 131:632-642 (Feb. 2003)
c	COLLAKOVA <i>et al.</i> , "Isolation and Characterization of Tocopherol Prenyl Transferase From <i>Synechocystis</i> and <i>Arabidopsis</i> ", Poster Abstract see REN-01-026
c	COOK <i>et al.</i> , "Nuclear Mutations affecting plastoquinone accumulation in maize", Photosynthesis Research, 31:99-111 (1992)
c	CUNILLERA <i>et al.</i> , "Characterization of dehydrodolichyl diphosphate synthase of <i>Arabidopsis thaliana</i> , a key enzyme in dolichol biosynthesis", FEBS Letters, 477:170-174 (2000)
c	d'AMATO <i>et al.</i> , "Subcellular localization of chorismate-mutase isoenzymes in protoplasts from mesophyll and suspension-cultured cells of <i>Nicotiana glauca</i> ," Planta, 162:104-108 (1984)
c	DOERKS <i>et al.</i> , "Protein annotation: detective work for function prediction", TIG, 14:248-250 (1998)
c	d'HARLINGUE <i>et al.</i> , "Plastid Enzymes of Terpenoid Biosynthesis, Purification and Characterization of γ -Tocopherol Methyltransferase from <i>Capsicum</i> Chromoplasts," The Journal of Biological Chemistry, Vol. 260, No. 28, pp. 15200-15203, December 5, 1985

Examiner

Date Considered

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(Form PTO-1449 [6-4])

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

c	DUNCAN <i>et al.</i> , "The overexpression and complete amino acid sequence of <i>Escherichia coli</i> 3-dehydroquinase", Biochem. J., 238:475-483 (1986)
c	DUVOLD <i>et al.</i> , "Incorporation of 2-C-Methyl-D-erythritol, a Putative Isoprenoid Precursor in the Mevalonate-Independent Pathway, into Ubiquinone and Menaquinone of <i>Escherichia coli</i> ", Tetrahedron Letters, 38(35):6181-6184 (1997)
c	ELLIOTT, Thomas, "A Method for Constructing Single-Copy <i>lac</i> Fusions in <i>Salmonella typhimurium</i> and Its Application to the <i>hemA-prfA</i> Operon", Journal of Bacteriology, 174:245-253 (1992)
c	EISENREICH <i>et al.</i> , "The deoxyxylulose phosphate pathway of terpenoid biosynthesis in plants and microorganisms", Chemistry & Biology, 5(9):R221-R233 (1998)
c	ERICSON <i>et al.</i> , "Analysis of the promoter region of napin genes from <i>Brassica napus</i> demonstrates binding of nuclear protein <i>in vitro</i> to a conserved sequence motif", Eur. J. Biochem., 197:741-746 (1991)
c	ESTÉVEZ <i>et al.</i> , "1-Deoxy-D-xylulose-5-phosphate Synthase, a Limiting Enzyme for Plastidic Isoprenoid Biosynthesis in Plants", The Journal of Biological Chemistry, 276(25):22901-22909 (2001)
c	FIEDLER <i>et al.</i> , "The formation of homogentisate in the biosynthesis of tocopherol and plastoquinone in spinach chloroplasts", Planta, 155:511-515 (1982)
c	FOURGOUX-NICOL <i>et al.</i> , "Isolation of rapeseed genes expressed early and specifically during development of the male gametophyte", Plant Molecular Biology, 40:857-872 (1999)
c	FRASER <i>et al.</i> , "Enzymic confirmation of reactions involved in routes to astaxanthin formation, elucidated using a direct substrate <i>in vitro</i> assay", Eur. J. Biochem., 252:229-236 (1998)
c	FRASER <i>et al.</i> , "In Vitro Characterization of Astaxanthin Biosynthetic Enzymes", The Journal of Biological Chemistry, 272(10) 6128-6135 (1997)
c	FRAY <i>et al.</i> , "Constitutive expression of a fruit phytoene synthase gene in transgenic tomatoes causes dwarfism by redirecting metabolites from the gibberellin pathway", The Plant Journal, 8(5):693-701 (1995)
c	FRAY <i>et al.</i> , "Identification and genetic analysis of normal and mutant phytoene synthase genes of tomato by sequencing, complementation and co-suppression", Plant Molecular Biology, 22:589-602 (1993)
c	FUQUA <i>et al.</i> , "Characterization of <i>melA</i> : a gene encoding melanin biosynthesis from the marine bacterium <i>Shewanella colwelliana</i> ", Gene, 109:131-136 (1991)
c	FURUYA <i>et al.</i> , "Production of Tocopherols by Cell Culture of Safflower", Phytochemistry, 26(10):2741-2747 (1987)
c	GARCIA <i>et al.</i> , "Subcellular localization and purification of a <i>p</i> -hydroxyphenylpyruvate dioxygenase from cultured carrot cells and characterization of the corresponding cDNA", Biochem. J., 325:761-769 (1997)
c	GAUBIER <i>et al.</i> , "A chlorophyll synthetase gene from <i>Arabidopsis thaliana</i> ", Mol. Gen. Genet., 249:58-64 (1995)
c	GOERS <i>et al.</i> , "Separation and characterization of two chorismate-mutase isoenzymes from <i>Nicotiana glauca</i> ", Planta, 162:109-116 (1984)

Examiner

Date Considered

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(Form PTO-1449 [6-4])

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

APPLICANT

BORONAT et al.

FILING DATE

November 13, 2001

GROUP

1638

c	GRABSE <i>et al.</i> , "Loss of α -tocopherol in tobacco plants with decreased geranylgeranyl reductase activity does not modify photosynthesis in optimal growth conditions but increases sensitivity to high-light stress", <i>Planta</i> , 213:620-628 (2001)
c	HECHT <i>et al.</i> , "Studies of the nonmevalonate pathway to terpenes: The role of the GcpE (IspG) protein", <i>PNAS</i> , 98(26):14837-14842 (2001)
c	HERRMANN, K.M., "The Shikimate Pathway as an Entry to Aromatic Secondary Metabolism", <i>Plan Physiol.</i> , 107:7-12 (1995)
c	HERZ <i>et al.</i> , "Biosynthesis of terpenoids: YgbB protein converts 4-diphosphocytidyl-2C-methyl-D-erythritol 2-phosphate to 2C-methyl-D-erythritol 2,4-cyclodiphosphate", <i>Proc. Natl. Acad. Sci. USA</i> , 97(6):2486-2490 (2000)
c	KAJIWARA <i>et al.</i> , "Isolation and functional identification of a novel cDNA for astaxanthin biosynthesis from <i>Haematococcus pluvialis</i> , and astaxanthin synthesis in <i>Escherichia coli</i> ", <i>Plant Molecular Biology</i> , 29:343-352 (1995)
c	KANEKO <i>et al.</i> , "Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium <i>Anabaena</i> sp. Strain PCC 7120", <i>DNA Research</i> , 8(5):205-213 (2001)
c	KEEGSTRA, K., "Transport and Routing of Proteins into Chloroplasts", <i>Cell</i> , 56(2):247-253 (1989)
c	KELLER <i>et al.</i> , "Metabolic compartmentation of plastid prennylipid biosynthesis Evidence for the involvement of a multifunctional geranylgeranyl reductase", <i>Eur. J. Biochem.</i> , 251:413-417 (1998)
c	KISHORE <i>et al.</i> , "Amino Acid Biosynthesis Inhibitors as Herbicides", <i>Ann. Rev. Biochem.</i> , 57:627-663 (1988)
c	KUMAGAI <i>et al.</i> , "Cytoplasmic inhibition of carotenoid biosynthesis with virus-derived RNA", <i>Proc. Natl. Acad. Sci. USA</i> , 92:1679-1683 (1995)
c	KUNTZ <i>et al.</i> , "Identification of a cDNA for the plastid-located geranylgeranyl pyrophosphate synthase from <i>Capsicum annuum</i> . correlative increase in enzyme activity and transcript level during fruit ripening", <i>The Plant Journal</i> , 2(1):25-34 (1992)
c	LI <i>et al.</i> , "Identification of a maize endosperm-specific cDNA encoding farnesyl pyrophosphate synthetase", <i>Gene</i> , 171:193-196 (1996)
c	LINTHORST <i>et al.</i> , "Constitutive Expression of Pathogenesis-Related Proteins PR-1, GRP, and PR-S in Tobacco Has No Effect on Virus Infection", <i>The Plant Cell</i> , 1:285-291 (1989)
c	LOIS <i>et al.</i> , "Cloning and characterization of a gene from <i>Escherichia coli</i> encoding a transketolase-like enzyme that catalyzes the synthesis of D-1-deoxyxylulose 5-phosphate, a common precursor for isoprenoid, thiamin, and pyridoxol biosynthesis", <i>Proc. Natl. Acad. Sci. USA</i> , 95(5):2105-2110 (1998)
c	LOPEZ <i>et al.</i> , "Sequence of the <i>bchG</i> Gene from <i>Chloroflexus aurantiacus</i> : Relationship between Chlorophyll Synthase and other Polyprenyltransferases", <i>Journal of Bacteriology</i> , 178(11):3369-3373 (1996)
c	LOTAN <i>et al.</i> , "Cloning and expression in <i>Escherichia coli</i> of the gene encoding β -C-4-oxygenase, that converts β -carotene to the ketocarotenoid canthaxanthin in <i>Haematococcus pluvialis</i> ", <i>FEBS Letters</i> , 364:125-128 (1995)
c	MAHMOUD <i>et al.</i> , "Metabolic engineering of essential oil yield and composition in mint by altering expression of deoxyxylulose phosphate reductoisomerase and menthofuran synthase", <i>PNAS</i> , 98(15):8915-8920 (2001)
c	MARSHALL <i>et al.</i> , "Biosynthesis of Tocopherols: A Re-Examination of the Biosynthesis and Metabolism of 2-Methyl-6-Phytyl-1,4-Benzoquinol", <i>Phytochemistry</i> , 24(8):1705-1711 (1985)

Examiner

Date Considered

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(Form PTO-1449 [6-4])

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)


- | | |
|---|---|
| c | MISAWA <i>et al.</i> , "Expression of an <i>Erwinia</i> phytoene desaturase gene not only confers multiple resistance to herbicides interfering with carotenoid biosynthesis but also alters xanthophyll metabolism in transgenic plants", <i>The Plant Journal</i> , 6(4):481-489 (1994) |
| c | McCONNELL <i>et al.</i> , "Role of <i>Phabulosa</i> and <i>Phavoluta</i> in determining radial patterning in shoots", <i>Nature</i> , 411(6838): 709-713 (2001) |
| c | MISAWA <i>et al.</i> , "Elucidation of the <i>Erwinia uredovora</i> Carotenoid Biosynthetic Pathway by Functional Analysis of Gene Products Expressed in <i>Escherichia coli</i> ", <i>Journal of Bacteriology</i> , 172(12):6704-6712 (1990) |
| c | MISAWA <i>et al.</i> , "Functional expression of the <i>Erwinia uredovora</i> carotenoid biosynthesis gene <i>crtI</i> in transgenic plants showing an increase of β -carotene biosynthesis activity and resistance to the bleaching herbicide norflurazon", <i>The Plant Journal</i> , 4(5):833-840 (1993) |
| c | MISAWA <i>et al.</i> , "Structure and Functional Analysis of a Marine Bacterial Carotenoid Biosynthesis Gene Cluster and Astaxanthin Biosynthetic Pathway Proposed at the Gene Level", <i>Journal of Bacteriology</i> , 177(22):6575-6584 (1995) |
| c | NAWRATH <i>et al.</i> , "Targeting of the polyhydroxybutyrate biosynthetic pathway to the plastids of <i>Arabidopsis thaliana</i> results in high levels of polymer accumulation", <i>Proc. Natl. Acad. Sci. USA</i> , 91:12760-12764 (1994) |
| c | NORRIS <i>et al.</i> , "Genetic Dissection of Carotenoid Synthesis in <i>Arabidopsis</i> Defines Plastoquinone as an Essential Component of Phytoene Desaturation", <i>The Plant Cell</i> , 7:2139-2149 (1995) |
| c | NORRIS <i>et al.</i> , "Complementation of the <i>Arabidopsis pds1</i> Mutation with the Gene Encoding <i>p</i> -Hydroxyphenylpyruvate Dioxygenase", <i>Plant Physiol.</i> , 117:1317-1323 (1998) |
| c | OH <i>et al.</i> , "Molecular Cloning, Expression, and Functional Analysis of a <i>cis</i> -Prenyltransferase from <i>Arabidopsis thaliana</i> ", <i>The Journal of Biological Chemistry</i> , 275(24):18482-18488 (2000) |
| c | OKADA <i>et al.</i> , "Five Geranylgeranyl Diphosphate Synthases Expressed in Different Organs Are Localized into Three Subcellular Compartments in <i>Arabidopsis</i> ", <i>Plant Physiology</i> , 122:1045-1056 (2000) |
| c | OOMMEN <i>et al.</i> , "The Elicitor-Inducible Alfalfa Isoflavone Reductase Promoter Confers Different Patterns of Developmental Expression in Homologous and Heterologous Transgenic Plants", <i>The Plant Cell</i> , 6:1789-1803 (1994) |
| c | OSTER <i>et al.</i> , "The G4 Gene of <i>Arabidopsis thaliana</i> Encodes a Chlorophyll Synthase of Etiolated Plants", <i>Bot. Acta</i> , 110:420-423 (1997) |
| c | PEISKER <i>et al.</i> , "Phytol and the Breakdown of Chlorophyll in Senescent Leaves", <i>J. Plant Physiol.</i> , 135:428-432 (1989) |
| c | POMPLIANO <i>et al.</i> , "Probing Lethal Metabolic Perturbations in Plants with Chemical Inhibition of Dehydroquinase Synthase", <i>J. Am. Chem. Soc.</i> , 111:1866-1871 (1989) |
| c | PORFIROVA <i>et al.</i> , "Isolation of an <i>Arabidopsis</i> mutant lacking vitamin E and identification of a cyclase essential for all tocopherol biosynthesis", <i>PNAS</i> , 99(19):12495-12500 (2002) |
| c | QUEROL <i>et al.</i> , "Functional analysis of the <i>Arabidopsis thaliana</i> GCPE protein involved in plastid isoprenoid biosynthesis", <i>FEBS Letters</i> , 514:343-346 (2002) |
| c | RIPPERT <i>et al.</i> , "Molecular and biochemical characterization of an <i>Arabidopsis thaliana</i> arogenate dehydrogenase with two highly similar and active protein domains", <i>Plant Mol. Biol.</i> , 48:361-368 (2002). |

Examiner

Date Considered

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(Form PTO-1449 [6-4])

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Rev. 2.32) PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MONS:039USC1; REN-01-020	SERIAL NO. 09/987,025
 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		APPLICANT BORONAT et al.	
		FILING DATE November 13, 2001	GROUP 1638

c	RIPPERT <i>et al.</i> , "Engineering Plant Shikimate Pathway for Production of Tocotrienol and Improving Herbicide Resistance", Plant Physiology, 134:92-100 (2004)
c	RODRIGUEZ-CONCEPCIÓN <i>et al.</i> , "Elucidation of the Methylerythritol Phosphate Pathway for Isoprenoid Biosynthesis in Bacteria and Plastids. A Metabolic Milestone Achieved through Genomics", Plant Physiology, 130:1079-1089 (2002)
c	RODRIGUEZ-CONCEPCIÓN <i>et al.</i> , "1-Deoxy-D-xylulose 5-phosphate reductoisomerase and plastid isoprenoid biosynthesis during tomato fruit ripening", The Plant Journal, 27(3):213-222 (2001)
c	ROHDICH <i>et al.</i> , "Cytidine 5'-triphosphate-dependent biosynthesis of isoprenoids: YgbP protein of <i>Escherichia coli</i> catalyzes the formation of 4-diphosphocytidyl-2-C-methylerythritol", Proc. Natl. Acad. Sci. USA, 96(21):11758-11763 (1999)
c	ROHMER <i>et al.</i> , "Glyceraldehyde 3-Phosphate and Pyruvate as Precursors of Isoprenic Units in an Alternative Non-mevalonate Pathway for Terpenoid Biosynthesis", J. Am. Chem. Soc., 118:2564-2566 (1996)
c	ROHMER <i>et al.</i> , "Isoprenoid biosynthesis in bacteria: a novel pathway for the early steps leading to isopentenyl diphosphate", Biochem. J., 295:517-524 (1993)
c	ROHMER, M., "A Mevalonate-independent Route to Isopentenyl Diphosphate", Comprehensive Natural Products Chemistry, 2:45-67 (1999)
c	ROHMER, M., "Isoprenoid biosynthesis via the mevalonate-independent route, a novel target for antibacterial drugs?", Progress in Drug Research, 50:136-154 (1998)
c	RÖMER <i>et al.</i> , "Expression of the Genes Encoding the Early Carotenoid Biosynthetic Enzymes in <i>Capsicum Annuum</i> ", Biochemical and Biophysical Research Communications, 196(3):1414-1421 (1993)
c	RUZAFI <i>et al.</i> , "The protein encoded by the <i>Shewanella colwelliana</i> <i>mela</i> gene is a <i>p</i> -hydroxyphenylpyruvate dioxygenase", FEMS Microbiology Letters, 124:179-184 (1994)
c	SAINT-GUILY <i>et al.</i> , "Complementary DNA Sequence of an Adenylate Translocator from <i>Arabidopsis thaliana</i> ", Plant Physiol., 100(2):1069-1071 (1992)
c	SANDMANN <i>et al.</i> , "New functional assignment of the carotenogenic genes <i>crtB</i> and <i>crtE</i> with constructs of these genes from <i>Erwinia</i> species", FEMS Microbiology Letters, 90:253-258 (1992)
c	SATO <i>et al.</i> , "Structural Analysis of <i>Arabidopsis thaliana</i> Chromosome 5. X. Sequence Features of the Regions of 3,076,755 bp Covered by Sixty P1 and TAC Clones", DNA Research, 7(1):31-63 (2000)
c	SAVIDGE <i>et al.</i> , "Isolation and Characterization of Homogentisate Phytoltransferase Genes from <i>Synechocystis</i> sp. PCC 6803 and <i>Arabidopsis</i> ", Plant Physiology, 129:321-332 (2002)
c	SCOLNIK <i>et al.</i> , "Nucleotide Sequence of an <i>Arabidopsis</i> cDNA for Geranylgeranyl Pyrophosphate Synthase", Plant Physiol., 104(4):1469-1470 (1994)
c	SHEWMAKER <i>et al.</i> , "Seed-specific overexpression of phytoene synthase: increase in carotenoids and other metabolic effects", The Plant Journal, 20(4):401-412 (1999)
c	SHIGEOKA <i>et al.</i> , "Isolation and properties of γ -tocopherol methyltransferase in <i>Euglena gracilis</i> ", Biochimica et Biophysica Acta, 1128: 220-226 (1992)

Examiner

Date Considered

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(Form PTO-1449 [6-4])

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

APPLICANT

BORONAT et al.

FILING DATE

November 13, 2001

GROUP

1638

- | | |
|---|---|
| | SHINTANI <i>et al.</i> , "Elevating the Vitamin E Content of Plants Through Metabolic Engineering", <i>SCIENCE</i> , 282:2098-2100 (1998) |
| c | SINGH <i>et al.</i> , "Chorismate Mutase Isoenzymes from <i>Sorghum bicolor</i> . Purification and Properties", <i>Archives of Biochemistry and Biophysics</i> , 243(2):374-384 (1985) |
| c | SMITH, F.W. <i>et al.</i> , "The cloning of two <i>Arabidopsis</i> genes belonging to a phosphate transporter family", <i>Plant Journal</i> , 11(1):83-92 (1997) |
| c | SMITH, T.F. <i>et al.</i> , "The challenges of genome sequence annotation or 'the devil is in the details'", <i>Nature Biotechnology</i> , 15:1222-1223 (1997) |
| c | SOLL <i>et al.</i> , "Hydrogenation of Geranylgeraniol", <i>Plant Physiol.</i> , 71:849-854 (1983) |
| c | SOLL <i>et al.</i> , "Tocopherol and Plastoquinone Synthesis in Spinach Chloroplasts Subfractions", <i>Archives of Biochemistry and Biophysics</i> , 204(2):544-550 (1980) |
| c | SOLL <i>et al.</i> , "2-Methyl-6-Phytylquinol and 2,3-Dimethyl-5-Phytylquinol as Precursors of Tocopherol Synthesis in Spinach Chloroplasts", <i>Phytochemistry</i> , 19:215-218 (1980) |
| c | SPRENGER <i>et al.</i> , "Identification of a thiamin-dependent synthase in <i>Escherichia coli</i> required for the formation of the 1-deoxy-D-xylulose 5-phosphate precursor to isoprenoids, thiamin, and pyridoxol", <i>Proc. Natl. Acad. Sci. USA</i> , 94:12857-12862 (1997) |
| c | SPURGEON <i>et al.</i> , "Biosynthesis of Isoprenoid Compounds", 1:1-45 (1981) |
| c | STOCKER <i>et al.</i> , "Identification of the Tocopherol-Cyclase in the Blue-Green Algae <i>Anabaena variabilis</i> KÜTZING (Cyanobacteria)", <i>Helvetica Chimica Acta</i> , 76:1729-1738 (1993) |
| c | STOCKER <i>et al.</i> , "The Substrate Specificity of Tocopherol Cyclase", <i>Bioorganic & Medicinal Chemistry</i> , 4(7):1129-1134 (1996) |
| c | SUN <i>et al.</i> , "Cloning and Functional Analysis of the β -Carotene Hydroxylase of <i>Arabidopsis thaliana</i> ", <i>The Journal of Biological Chemistry</i> , 271(40):24349-24352 (1996) |
| c | SUZICH <i>et al.</i> , "3-Deoxy-D-arabino-Heptulosonate 7-Phosphate Synthase from Carrot Root (<i>Daucus carota</i>) Is a Hysteretic Enzyme", <i>Plant Physiol.</i> , 79:765-770 (1985) |
| c | SVAB <i>et al.</i> , "High-frequency plastid transformation in tobacco by selection for a chimeric <i>aadA</i> gene", <i>Proc. Natl. Acad. Sci. USA</i> , 90:913-917 (1993) |
| c | SVAB <i>et al.</i> , "Stable transformation of plastids in higher plants", <i>Proc. Natl. Acad. Sci. USA</i> , 87:8526-8530 (1990) |
| c | TAKATSUJI, H., "Zinc-finger transcription factors in plants", <i>CMLS Cell. Mol. Life Sci.</i> , Birkhauser Verlag Basel CH, 54(6):582-596 (1998) |
| c | TJADEN <i>et al.</i> , "Altered plastidic ATP/ADP-transporter activity influences potato (<i>Solanum tuberosum</i> L.) tuber morphology, yield and composition of tuber starch", <i>The Plant Journal</i> , 16(5):531-540 (1998) |
| c | TOWN <i>et al.</i> , "Whole genome shotgun sequencing of Brassica oleracea, BOGKS71TF BOGK Brassica oleracea genomic clone BOGKS71, DNA sequence", <i>Database EMBL Accession No. BH534089</i> (Dec 2001) |
| c | TOWN <i>et al.</i> , "Whole genome shotgun sequencing of Brassica oleracea, BOGAU46TR BOGA Brassica oleracea genomic clone BOGAU46, DNA sequence", <i>Database EMBL Accession No. BH248880</i> (Nov 2001) |

Examiner

Date Considered

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(Form PTO-1449 [6-4])

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

- | | | |
|--|---|--|
| | | VERWOERT <i>et al.</i> , "Developmental specific expression and organelle targeting of the <i>Escherichia coli fabD</i> gene, encoding malonyl coenzyme A-acyl carrier protein transacylase in transgenic rape and tobacco seeds", <i>Plant Molecular Biology</i> , 26:189-202 (1994) |
| | c | XIA <i>et al.</i> , "A monofunctional prephenate dehydrogenase created by cleavage of the 5' 109 bp of the <i>tyrA</i> gene from <i>Erwinia herbicola</i> ", <i>Journal of General Microbiology</i> , 138(7):1309-1316 (1992) |
| | c | XIA <i>et al.</i> , "The <i>pheA</i> / <i>tyrA</i> / <i>aroF</i> Region from <i>Erwinia herbicola</i> : An Emerging Comparative Basis for Analysis of Gene Organization and Regulation in Enteric Bacteria", <i>Database GENBANK on STN, GenBank ACC. NO. (GBN): M74133, J. Mol. Evol.</i> , 36(2):107-120 Abstract (1993) |
| | c | YAMAMOTO, E., "Purification and Metal Requirements of 3-Dehydroquinate Synthase from <i>Phaseolus Mungo</i> Seedlings", <i>Phytochemistry</i> , 19:779-781 (1980) |
| | c | ZAKA <i>et al.</i> , "Changes in Carotenoids and Tocopherols During Maturation of <i>Cassia</i> Seeds", <i>Pakistan J. Sci. Ind. Res.</i> , 30(11): 812-814 (1987) |
| | c | ZHU <i>et al.</i> , "Geranylgeranyl pyrophosphate synthase encoded by the newly isolated gene <i>GGPS6</i> from <i>Arabidopsis thaliana</i> is localized in mitochondria", <i>Plant Molecular Biology</i> , 35:331-341 (1997) |
| | c | ZHU <i>et al.</i> , "Cloning and Functional Expression of a Novel Geranylgeranyl Pyrophosphate Synthase Gene from <i>Arabidopsis thaliana</i> in <i>Escherichia coli</i> ", <i>Plant Cell Physiol.</i> , 38(3):357-361 (1997) |
| | c | BAKER <i>et al.</i> , NCBI Accession Number X64451 (Dec 1993) |
| | c | KANEKO <i>et al.</i> , NCBI General Identifier Number 1653572, Accession Number BAA18485 (Jul 2001) |
| | c | KANEKO <i>et al.</i> , NCBI General Identifier Number 1001725, Accession Number BAA10562 (Feb 2003) |
| | c | ALCALA <i>et al.</i> , Genbank Accession Number AI 897027 (Jul 1999) |
| | c | BEVAN <i>et al.</i> , Database EMBL, Accession No. AL035394 (Feb 1999) |
| | c | BEVAN <i>et al.</i> , TREMBL Database Accession No. O65524 (Aug 1998) |
| | c | CAMPOS <i>et al.</i> , NCBI General Identifier BAA 18485, Database EMBL, Accession No.: AF148852, (2000) |
| | c | CHEN <i>et al.</i> , EMBL Sequence Database Accession No. AI995392 (Sep 1999) |
| | c | DESPREZ <i>et al.</i> , Database EMBL, Accession No. Z34566 (Jun 1994) |
| | c | FEDENKO <i>et al.</i> , Abstract: RU 2005353, Derwent Accession Number: 1994-253787 |
| | c | GAUBIER <i>et al.</i> , Database EMBL, Accession No. Q38833 (Nov 1996) |
| | c | KANEKO <i>et al.</i> , Database EMBL, Accession No. P73726 (Feb 1997) |
| | c | KANEKO <i>et al.</i> , Database EMBL, Accession No. P73962 (Jul 1998) |
| | c | KANEKO <i>et al.</i> , EMBL Sequence Database Accession No. D90909 (Oct 1996) |
| | c | KANEKO <i>et al.</i> , TREMBL Database Accession No. P73727 (Feb 1997) |

Examiner

Date Considered

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(Form PTO-1449 [6-4])

FORM PTO-1449
(Rev. 2.32)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.
MONS:039USC1; REN-01-020

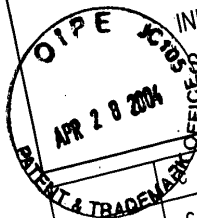
SERIAL NO.
09/987,025

APPLICANT
BORONAT et al.

FILING DATE
November 13, 2001

GROUP
1638

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use several sheets if necessary)




Sequence	Reference	Accession No.	Date
1	LIN et al., Database EMBL	AC003672	(Dec 1997)
2	LIN et al., Database EMBL	AC003673	(Dec 1997)
3	LIN et al., Database EMBL	AC004077	(Feb 1998)
4	MALAKHOV et al., Database TREMBL	Q55207	(Nov 1996)
5	MURATA et al., EMBL Sequence Database	D13960	(Mar 1996)
6	NAKAMURA et al., Database EMBL	AB005246	(July 1997)
7	NEWMAN et al., Database EMBL	R30625	(Aug 1995)
8	NEWMAN et al., Database EMBL	T44803	(Feb 1995)
9	NEWMAN et al., Database Biosis	PREV199800047824	(Oct. 1997)
10	OSTER et al., Database EMBL	AF381248	(Jan 2003)
11	OUYANG et al., Database EMBL	B24116	(Oct 1997)
12	ROUNSLY et al., Database EMBL	B29398	(Oct 1997)
13	ROUNSLY et al., Database TREMBL	064684	(Aug 1998)
14	ROUNSLY et al., Database EMBL	L40577	(Apr 1995)
15	SCOLNIK et al., Database EMBL	AF104220	(Jan 1999)
16	SHINTANI et al., Database NCBI	AF1748688	(Jun 1999)
17	SHOEMAKER et al., Database EMBL	A1938569	(Aug 1999)
18	SHOEMAKER et al., Database EMBL	A1988542	(Sept 1999)
19	SHOEMAKER et al., Database EMBL	AW306617	(Jan 2000)
20	TABATA et al., Database EMBL	D64001	(Sep 1995)
21	TABATA et al., Database EMBL	D64006	(Sep 1995)
22	TABATA et al., Database EMBL	D90909	(Oct 1996)
23	TABATA et al., Database EMBL	D90911	(Oct 1996)
24	TABATA et al., Database EMBL	Q55145	(Nov 1996)
25	TABATA et al., Database EMBL	Q55500	(Nov 1996)
26	WALBOT, V., Database EMBL	A1795655	(Jul 1999)
27	WING et al., Database EMBL	AQ690643	(Jul 1999)

Examiner

Date Considered

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609;
Draw line through citation if not in conformance and not considered. Include copy of this form with
next communication to applicant.

(Form PTO-1449 [6-4

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Rev. 2.32) PATENT AND TRADEMARK OFFICE 	ATTY. DOCKET NO. MONS:039USC1; REN-01-020		SERIAL NO. 09/987,025
	APPLICANT BORONAT et al.		
	FILING DATE November 13, 2001	GROUP 1638	

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use several sheets if necessary)

c	XIA <i>et al.</i> , Database EMBL, Accession No. M74133 (Jun 1993)
c	BEVAN <i>et al.</i> , Accession T4 8445
c	International Search Report, PCT/US00/10368, pp. 1-14 (June 15, 2001)
c	Written Opinion, PCT/US00/10368, pp. 1-6 (May 9, 2002)
c	IPER, PCT/US00/10368, pp. 1-5 (August 16, 2002)
c	Examination Report, New Zealand Patent Application No. 514600, based on PCT/US/00/10368, pp. 1-2 (April 24, 2003)
c	Communication pursuant to Article 96(2) EPC, EP Application 00922287.8, based on PCT/US00/10368, pp. 1-6 (October 17, 2003)
c	Examiner's Report No. 2, Australia Patent Application No. 42492/00, based on PCT/US00/10368, pp. 1-4 (November 12, 2003)
c	International Search Report, PCT/US00/10367 (September 15, 2000)
c	International Search Report, PCT/US01/12334, pp. 1-5 (April 5, 2002)
c	International Search Report, PCT/US01/24335, pp. 1-8 (March 6, 2003)
c	International Search Report, PCT/US01/42673, pp. 1-4
c	International Search Report, PCT/US02/03294, pp. 1-4 (March 19, 2003)
c	International Search Report, PCT/US02/13898, pp. 1-3 (September 13, 2002)
c	IPER, PCT/US02/13898, pp. 1-4 (April 24, 2003)
c	International Search Report, PCT/US02/14445, pp. 1-6 (October 30, 2003)
c	International Search Report, PCT/US02/26047, pp. 1-5 (December 5, 2003)
c	International Search Report, PCT/US02/34079, pp. 1-5 (July 28, 2003)
c	Written Opinion, PCT/US02/34079, pp. 1-4 (October 23, 2003)
c	Response to Written Opinion, PCT/US02/34079, pp. 1-6 (December 22, 2003)
	Slr1736 cyanobase www.kazusa.com

Examiner	Date Considered
----------	-----------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(Form PTO-1449 [6-4])